Milestone
XProtect®

NVR
Installer's Guide

Target Audience for this Document

This guide is relevant for people responsible for delivering and installing Milestone XProtect NVR surveillance systems.

If you are a Milestone XProtect NVR surveillance system administrator, meaning someone who will have administrator rights and responsibilities on the Milestone XProtect NVR surveillance system once the system has been delivered and installed, see the Milestone XProtect NVR Administrator's Getting Started Guide instead.

This guide does not contain relevant information for surveillance system end users.

More detailed information about using XProtect NVR is available in the XProtect Administrator's Manual as well as in XProtect's built-in help system (see page 11). Note, however, that when the XProtect software is used on an XProtect NVR, the manual and help system will differ slightly from what you will experience on your XProtect NVR. This will primarily be evident in the descriptions of installation and the licensing model as well as in the descriptions of the number of cameras and other hardware devices you are able to add to the system. You will find, however, that the majority of the manual and help system content applies for XProtect NVR too.

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About XProtect NVR

XProtect NVR is a unique out-of-the-box IP video management software solution delivered complete with computer hardware containing pre-installed operating system and surveillance software. It all comes in one package with no need for additional software installation

The XProtect NVR is powered by Milestone's market leading XProtect video management software. It includes a wide set of easy-to-use features that allow users to view live and recorded video, and rapidly investigate incidents and export related video material from the XProtect NVR. The pre-loaded software and system configuration wizards ensure minimal deployment effort, XProtect NVR's high performance hardware and disk system ensures trouble-free operation and secure storage of video recordings.

Milestone XProtect NVR includes:

- **Computer hardware**, which is a ready-to-use PC, pre-installed with optimized XProtect software and Microsoft® Windows 7 Professional operating system.

- **XProtect NVR Management Application**, which you use for configuring your surveillance system. The Management Application is pre-installed on the PC when you receive it.

- **XProtect Smart Client**, which you use for viewing live and recorded video. The XProtect Smart Client is also pre-installed on the PC when you receive it, ready to show video from your network cameras. If you would rather view video on another PC, you can easily install an XProtect Smart Client on another PC. See page **Error! Bookmark not defined.** for further information.

- **XProtect Transact**, which links your live video with your transaction data. XProtect Transact is available for installation on the desktop of your XProtect NVR. For information on how to get started with XProtect Transact, see the User's Manual, available at http://software.milestone.dk/XProtect%20Transact%2025e/Manuals/XPT_Users_Manual.pdf. You must buy a Transact license in order to activate and use the functionality.

- **XProtect Mobile**, which allows you to view live and recorded video from XProtect NVR on a mobile device. The XProtect Mobile server installer is available for installation on the desktop of your XProtect NVR. For information on how to get started with XProtect Mobile, see the User's Manual, available at http://software.milestone.dk/XProtect%20Mobile%2010a/Manuals/MilestoneXProtectMobile_Users_Manual_en-US.pdf.

XProtect NVR supports the market's widest range of cameras. A complete list over supported cameras and other hardware devices is available at www.milestonesys.com/support.

The XProtect NVR lets you choose between eleven different languages in the Management Application. The XProtect Smart Client is available in more than 20 languages.

Get the XProtect NVR Up and Running

The XProtect NVR comes with a temporary license that has a grace period of 30 days. You must activate the license before the end of this grace period.

Activate the License

1. Ensure that your system is connected to the Internet.
2. On the Management Application's toolbar, click File, Activate License Online.
3. When your license file (.lic) is successfully updated, click *Close*.

   Your XProtect NVR is now activated and ready to use. You can see any updates in the *Hardware Device Summary* table. Once activated, your system no longer needs to be connected to the Internet.

Online Activation Error Messages

Under rare circumstances, you may receive one of the following error messages during online activation. Should you receive one, the following list of *Problems* and *What to do* will help you identify the problem:

Unable to access license server, Error activating license, License not allowed, Feature not registered, Feature already in use, Failed to login.

- **Problem:** Online activation was not possible, either due to a problem on the online activation server itself, a problem with your connection to the online activation server, or to a problem with the specified information (such as username or password).
- **What to do:** Contact Milestone Support (support@milestonesys.com), who will investigate the issue for you. If activation has already taken place on another system, activation should not be necessary, as another system is already running with your activated licenses. If you believe that this is wrong, contact Milestone Support (support@milestonesys.com), who will investigate the issue for you.

How the XProtect NVR Is Configured

When you first start it, the Milestone XProtect NVR is configured as described in the following. For more detailed information, see the XProtect Administrators Manual.

Microsoft Windows

- Disk 1 partition (1 HDD – C:Windows / D:Data; 2 HDD – C:Windows / D: Data / E: Data).
- Windows Firewall has been disabled (incl. Action Center notification).

- Windows Update has been disabled. Updates are available through manual Windows Update.

BIOS

- AC recovery is set to *Last State.*

Virus Scanning

No anti-virus program is installed on the XProtect NVR when you receive it.

Virus scanning must be avoided in specific contexts on XProtect NVR, since virus scanning will use a considerable amount of system resources on scanning surveillance system data, notably data in databases containing recordings.

Virus scanning may also temporarily lock each file being scanned, which may further impact system performance negatively. Virus scanning may even corrupt recording databases, and render your surveillance system recordings useless.

Therefore:

- Do not use virus scanning on folders containing **recording databases** (by default D:\ and all folders under that location).
- Do not use virus scanning on **archiving locations**.
- Do not use virus scanning on files with the following **file extensions** (which are all surveillance system-related):
  - .blk
  - .idx
  - .pic
  - .pqz
  - .sts
  - .ts

The organization in which the XProtect NVR will be used may have strict guidelines re. virus scanning, but it is important that the above locations and files are exempt from virus scanning. Consult the organization's IT system administrator if in doubt.

Milestone Software

- For you convenience, an administrator user has been pre-defined in the XProtect Management Application.
  - **User name**: admin
  - **Password**: admin
- The default recording and archiving paths are set to D:\
- 8- and 16-camera views have been pre-defined in the XProtect Smart Client, making it easy for XProtect Smart Client users to begin viewing video from the surveillance system.
- Language packs for the XProtect Smart Client are installed on the server, giving the user easy access to change the language used in the Smart Client.

- When XProtect Smart Clients are installed on other PCs than the XProtect NVR, language packs can easily be downloaded from the XProtect NVR.
- The Remote Client, which users access by connecting to the XProtect NVR, is also available in several languages.

Make Sure the XProtect NVR Is Up-to-date

Service Releases

The XProtect NVR is installed with the latest released software at the time of production. To check if a software service release for the XProtect NVR has been made available in the meantime, we recommend that you visit www.milestonesys.com.

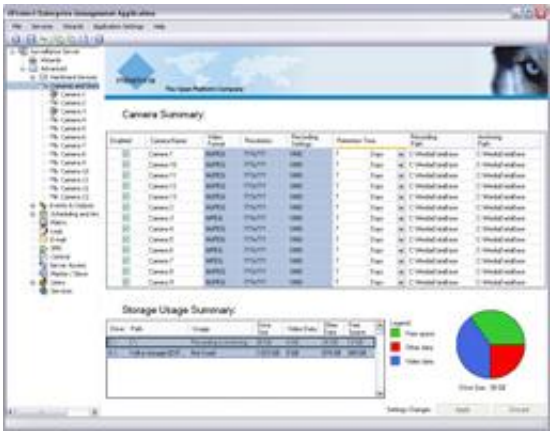
Upgrade Video Device Drivers

Video device drivers are small programs used for controlling/communicating with the cameras and other hardware devices connected to the XProtect NVR. Video device drivers are installed on the XProtect NVR at the time of production. However, new versions of the video device drivers—so-called Device Packs—are released and made available for free on Milestone Systems' website from time to time.

To check if a new Device Pack has been made available since the XProtect NVR was produced, visit www.milestonesys.com (look under *Support* > *Downloads*) and download the latest Device Pack. When updating video device drivers, there is no need to remove the old video device drivers first; simply install the latest version on top of any old version on the XProtect NVR.

Configure the XProtect NVR through the Management Application

The Management Application is the XProtect NVR's server-side user interface; all management of your surveillance system is handled here.



In the Management Application, wizards guide you through common tasks, such as adding cameras and other hardware devices to the system. Detailed configuration, without wizards, is of course also possible. You can configure multiple cameras, events, users, etc. in one go.

You access the Management Application by double-clicking the *Management Application* desktop shortcut. Alternatively, use Windows' *Start* menu: *Start > All Programs > Milestone > Management Application*.

Select Language

To select required language for the Management Application, do the following:

1. In the Management Application's menu bar, select *Application Settings > Application Behavior…* to open the Application Behavior window.
2. In the *Application Behavior* window, select *Language*, and then select required language from the list.
3. Click *OK*.
4. Restart the Management Application. After restart, the new language settings will become effective.

Add Cameras and Other Hardware Devices

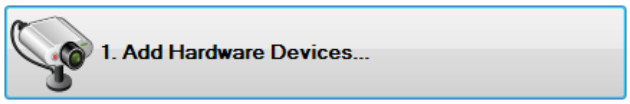
You add cameras and other hardware devices, such as video encoders, to the XProtect NVR system through a wizard. The maximum number of cameras you are able to add to the XProtect NVR depends on the specific version purchased.

If video encoders are to be used on the system, bear in mind that video encoders can have more than one camera connected to them. For example, a fully used four-port video encoder will count as four cameras.

If microphones are attached to hardware devices, they are automatically added as well. Note that it is only possible to use one microphone at a time with XProtect NVR.

Before adding hardware devices, make sure you have configured their IP addresses, passwords, etc. as described by the hardware manufacturers. Then do the following:

1. In the Management Application, click the large *Add Hardware Devices…* button to start the *Add Hardware Devices* wizard.



2. Select a hardware detection method, and follow the wizard.

   Tip: We recommend the *Express* option: it scans the network for relevant hardware devices, and helps you quickly add them to the system. Note, however, that the *Express* option only scans for hardware devices supporting device discovery (a method with which hardware devices make information about themselves available on the network), and only on the part of your network (subnet) where the XProtect NVR server itself is located.

Configure Cameras

You can specify a wide variety of settings for each camera connected to the XProtect NVR system. Settings include video format, resolution, motion detection sensitivity, where to store and archive recordings, any PTZ preset positions, association with microphones, etc.

You configure cameras under *Advanced Configuration* > *Cameras and Storage Information* in the Management Application's navigation pane.

PTZ Cameras

You can easily use PTZ (Pan/Tilt/Zoom) cameras with XProtect NVR. Such cameras can be operated manually as well as by selecting pre-defined presets. Check the Device Pack Release Notes, available from the *Downloads* section of the Milestone website, www.milestonesys.com, to see exactly which PTZ features are supported for the PTZ camera hardware and firmware used in your customer's installation.

You configure PTZ presets and automated PTZ operations individually for each PTZ camera: Under *Advanced Configuration* in the Management Application's navigation pane, select *Cameras and Storage Information*, then double-click the required camera.

Tip: If your customer has analog PTZ cameras attached to video encoders, such analog PTZ cameras can be used too. However, they require a bit more initial configuration: In the Management Application's navigation pane, expand *Advanced Configuration* > *Hardware Devices*, double-click the required hardware device and specify PTZ Device properties.

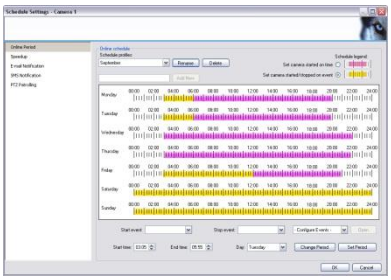
360 Lens Cameras

If required, you can also use dedicated 360° lens cameras for 360° panoramic images with XProtect NVR: First, under *Advanced Configuration* in the Management Application's navigation pane, select *Hardware Devices*, then double-click the hardware device to which the 360° lens camera is attached, and verify that 360° functionality is enabled. Then, under *Advanced Configuration* in the navigation pane, select *Cameras and Storage Information*, double-click the required camera, and configure the 360° view.

Configure Scheduling & Archiving

Does your customer want some cameras to transfer video to XProtect NVR at all times, and other cameras to transfer video only within specific periods of time, or when specific events occur? With

the scheduling feature, you can specify this as well as when to send notifications to users of the system.



Archiving is an integrated and automated feature that helps store recordings beyond the capabilities of XProtect NVR's standard database. With XProtect NVR's default settings, archiving takes place once a day or whenever databases become full; you can specify additional archiving times if required.

You configure scheduling and archiving under *Advanced Configuration* > *Scheduling and Archiving* in the Management Application's navigation pane.

Configure Events & Output

Events, for example based on input from sensors, can be used to automatically start/stop recordings, to automatically send notifications, etc. Output can be used for activating external units, such as sirens or lights; output can be triggered automatically by events. Users can also activate events and output manually from their clients.

The use of most input events, and all types of output, requires that external sensors are wired to input/output (I/O) connectors on the hardware device in question, and that I/O operation on the hardware device is supported by XProtect NVR. Check the Device Pack Release Notes, available from the *Downloads* section of www.milestonesys.com, to see if I/O operation is supported for the hardware and firmware used in your customer's installation.

You configure events and output under *Advanced Configuration* > *Events and Output* in the Management Application's navigation pane. Once you have configured events, the events can be used with features throughout XProtect NVR, regardless of where sensors, users, etc. are physically located.

Configure Clients & Users

Two client applications, the Smart Client and Remote Client, are included with XProtect NVR. To quickly and easily configure how client applications should be able to access the XProtect NVR server, and which users should be able to use the client applications, start the *Configure User Access* wizard. Note, however, that the wizard gives users access to *all* cameras on the system; if different rights are required for individual users, you should use *Advanced Configuration* instead:

Under *Advanced Configuration* > *Server Access* in the Management Application's navigation pane, you can specify whether you want clients to be able access the XProtect NVR server from the internet, how many clients should be able to connect simultaneously, etc.

Under *Advanced Configuration* > *Users* in the navigation pane, you can configure who should have client access, and with which rights.

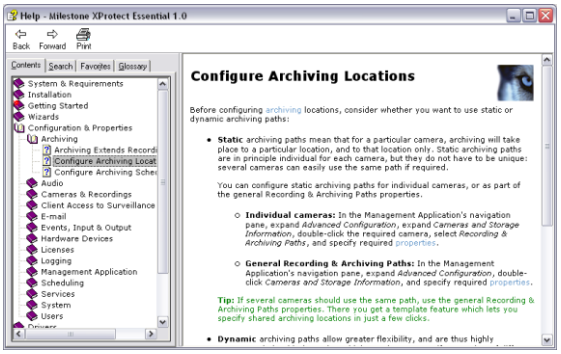
Use the Built-in Help System

XProtect NVR features a very comprehensive built-in help system, with help and advice on many levels.

The built-in help system in XProtect NVR comes from the XProtect software. When the XProtect software is used on an XProtect NVR, the help system will differ slightly from what you will experience on the XProtect NVR. This will primarily be evident in the descriptions of installation and the licensing model as well as in the descriptions of the number of cameras and other hardware devices it is possible to add to the system. You will find, however, that the majority of the help system's content applies for XProtect NVR too.

The help system will provide you with information on:

- Concepts (such as *What is a PTZ camera?*)
- Procedures (such as *How do I configure a PTZ Camera?*)
- Basic facts (such as *Can I use the character # when I name a PTZ camera?*)
- Useful tips (such as keyboard shortcuts, etc.)


Help - Milestone XProtect Essential 1.0
Back
Forward
Print
Contents
Search
Favorites
Glossary
System & Requirements
Installation
Getting Started
Wizards
Configuration & Properties
Archiving
Archiving Extends Record
Configure Archiving Locat
Configure Archiving Sche
Audio
Cameras & Recordings
Client Access to Surveillance
E-mail
Events, Input & Output
Hardware Devices
Licenses
Logging
Management Application
Scheduling
Services
System
Users
Configure Archiving Locations
Before configuring archiving locations, consider whether you want to use static or dynamic archiving paths:
Static archiving paths mean that for a particular camera, archiving will take place to a particular location, and to that location only. Static archiving paths are in principle individual for each camera, but they do not have to be unique: several cameras can easily use the same path if required.
You can configure static archiving paths for individual cameras, or as part of the general Recording & Archiving Paths properties.
Individual cameras: In the Management Application's navigation pane, expand Advanced Configuration, expand Cameras and Storage Information, double-click the required camera, select Recording & Archiving Paths, and specify required properties.
General Recording & Archiving Paths: In the Management Application's navigation pane, expand Advanced Configuration, double-click Cameras and Storage Information, and specify required properties.
Tip: If several cameras should use the same path, use the general Recording & Archiving Paths properties. There you get a template feature which lets you specify shared archiving locations in just a few clicks.
Dynamic archiving paths allow greater flexibility, and are thus highly

The help system matches the tasks you work on, and a search feature quickly lets you find related information.

To access the help system from anywhere within the Management Application, click the *Help* button in the toolbar. Alternatively, press F1 on your keyboard.

The Smart Client features a similar help system.

Milestone Systems offices are located across the world. For details about office addresses, phone and fax numbers, visit www.milestonesys.com.

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